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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,736	02/19/2004	Ned P. Baudat	26820/03	1669

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EXAMINER

LEUNG, RICHARD L

ART UNIT	PAPER NUMBER
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3744

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary

Application No.

10/782,736

Applicant(s)

BAUDAT, NED P.

Examiner

Richard L. Leung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-16 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

2. The disclosure is objected to because of the following informalities: the recitation of "I WILL BE WRITING OTHER CLAIMS" on page 30 (first page of claims) should be removed. Appropriate correction is required.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the dividing walls 77 and the inlet line 21 as described in the specification. Please note that while Fig. 1 does include reference character 77, no dividing wall appears to be shown in the figure. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

Additionally, the drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include reference character 21 mentioned in the description.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 18-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 18 recites the limitations, "the tank section" and "the pump section." There is insufficient antecedent basis for these limitations in the claim since neither claim 18 nor parent claim 17 previously recite the tank and pump

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sections. Likewise claims 19 and 20 recite the limitation, "within the tank section of a containment box." Again there is insufficient antecedent basis for this limitation in the claims since the tank section was never previously recited.

6. Claim 20 is additionally rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: pumping the cryogenic fluid from the multiplicity of tanks to the vaporizer with the pump system. It is particularly suggested that the recitation of "discharging cryogenic fluid through the vaporizer" on lines 4-5 of the claim be amended to include said omitted steps.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4, 7, 8, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 3863460 (Straile et al.) in view of US 2002/0046773 A1 (Bishop et al.) and US 6085528 (Woodall et al.). Straile et al. disclose a system for storing and transporting liquefied gases in storage units 10 supported on a marine vehicle (see Fig. 7) comprising a multiplicity of cylindrical tanks 2 arranged parallel to each other and manifolded together at pipe 6 for filling in parallel, series, or both (see Figs. 1 to 6), and further comprising a pump system 8 located within said pipe 6. Straile et al. fail to disclose that said multiplicity of tanks 2 and said pump system 8 is positioned within a

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sealed containment box, particularly wherein said box is insulated and filled with an inert gas, and Straile et al. further fail to disclose a vaporizer positioned outside the box and in liquid communication with the pump system. Referring to Fig. 13 and paragraph [0149], Bishop et al. teach a similar arrangement for storing fluids in a modular storage unit 230 comprising a multiplicity of cylindrical tanks 232 with manifold 233, and further comprising a containment box 238 which encloses said multiplicity of tanks 232 and manifold 233. Bishop et al. further teach that said box 238 is lined with insulation 234 and is filled with an inert gas, particularly nitrogen. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have positioned the storage units 10 of Straile et al. in a containment box that is insulated and filled with inert gas because, in addition to providing a physical and thermal protective barrier around said tanks, Bishop et al. explicitly teach that such an arrangement can protect against corrosion and provide a stable atmosphere that can facilitate the detection of leaks (see paragraphs [0153] and [0154]). Woodall et al. also teach a similar arrangement, particularly for storing pressurized liquefied natural gas at cryogenic temperatures, comprising a multiplicity of cylindrical tanks 42 located on a marine vehicle 40, and further comprising an on-board vaporizer 44 supported by said tanks 42 (see Figs. 4A-4C; column 11, lines 20-24) for vaporizing the stored liquefied natural gas. It would have been obvious to further modify the system of Straile et al. to include a vaporizer, in the manner taught by Woodall et al., because this would provide a means for vaporizing the stored liquefied gases such that a vaporized product may be delivered to the end user, as is already well appreciated and conventional in the art. Please note

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that any such vaporizer in the combination would inherently be in liquid communication with the pump since the pump is responsible for filling and withdrawing said tanks.

While Straile et al. do not expressly disclose that said tanks 2 contain cryogenic fluid or liquefied natural gas as recited in claims 7 and 8, these limitations are considered to be obvious modifications of Straile et al. since said tanks 2 are intended to hold any liquefied gases, and furthermore, Woodall et al. demonstrate that it is already well known in the art to store these fluids in such tank arrangements.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 3863460 (Straile et al.) in view of US 2002/0046773 A1 (Bishop et al.) and US 6085528 (Woodall et al.) as applied to claim 1 above, and further in view of US 5570714 (Magish). The combination of Straile et al., Bishop et al., and Woodall et al., demonstrate all the limitations of the claim, except for wherein the box comprises at least one internal dividing wall dividing the box into at least two compartments. Magish teaches an apparatus for storing liquid fuel comprising a sealed containment box 102, a storage tank 202 positioned within the box 102, and a pump system 806 positioned within the box 102 in liquid communication with the tank 202. Magish further teaches that the box 102 comprises at least one internal dividing wall 201 that divides the box 102 into at least two compartments: a pumping compartment 203 that holds the pump system 806 and a containment section 205 that holds the storage tank 202. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in the combination of Straile et al., Bishop et al., and Woodall et al., a dividing wall to separate the box into a pump section and containment section because

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Magish explicitly teaches that such an arrangement can protect the contents in the containment section from any fires within the pumping section. See particularly column 4, lines 8-11.

Allowable Subject Matter

10. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 9-16 are allowed.

12. Claims 18 and 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claims and any intervening claims.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 3145680 (Farkas et al.): disclose a system for storing and transporting liquefied gases comprising a multiplicity of storage tanks located in a housing.

US 3537416 (Cowles): discloses a system for storing liquefied gases comprising a multiplicity of cylindrical tanks positioned inside an enclosure.

US 3830180 (Bolton): discloses a containment system for volatile liquids comprising a multiplicity of storage tanks having an insulating barrier.

US 3886885 (Becker et al.): disclose a system for storing liquefied natural gas comprising a multiplicity of tanks positioned inside a containment chamber.

US 5284191 (McGarvey): discloses a safety tank apparatus comprising box divided into a pump section and a storage section and a storage tank located in the storage section.

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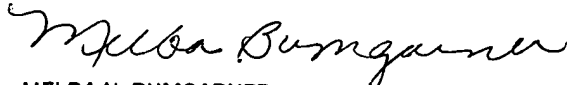
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard L. Leung whose telephone number is 571-272-4811. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard L. Leung
Examiner
Art Unit 3744

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MELBA N. BUMGARNER
PRIMARY EXAMINER